

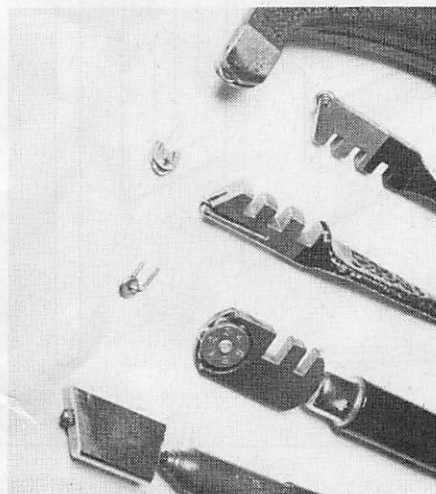
An expert's

by Otha C. Spencer

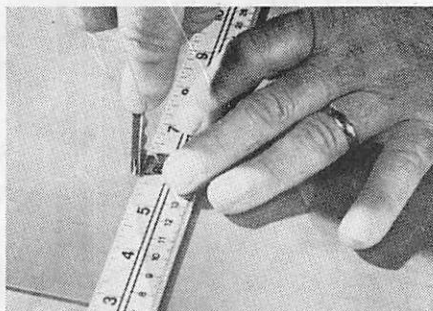
1 Glass-cutting tools available are (left to right): heavy-duty cutter with replaceable wheel; standard cutter with ball tip; standard cutter with replaceable wheel; multiple-head cutter; diamond cutter; glass-cutting hacksaw blade; glazier's pliers and circle cutter.

Now, before cold weather arrives, is the time to check your storm windows for cracked panes. Cutting glass to make these repairs simply requires practice.

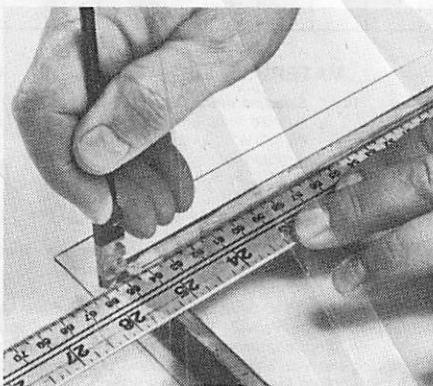
In truth, glass isn't really cut; it's broken. The cutting tool creates a fissure, a line of stress. Glass will snap along this fissure when you apply a bending pressure. Different types of glass cutters are available (photos 1 and 2).



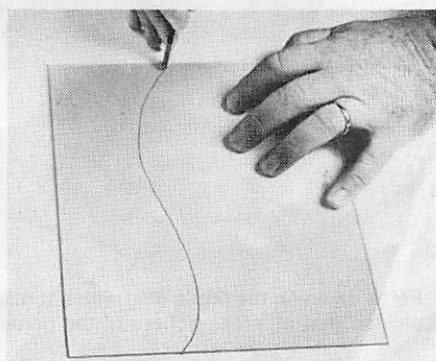
2 The cutting heads shown are (from the top): heavy-duty cutter; standard cutter; cutter with replaceable wheel; multiple-head cutter and diamond cutter.



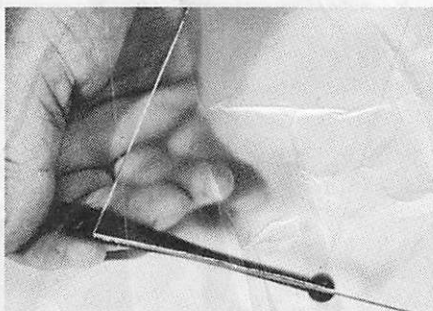
3 The cutting surface must be flat. The standard way to hold cutter is between index and middle finger. It's important to keep the cutter perpendicular to glass.



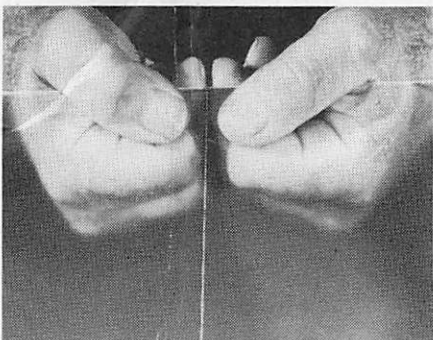
4 To get a good fit on a picture-frame glass, cut it over the frame. A straightedge with some strips of electrician's tape on the bottom is a good, nonskid guide.



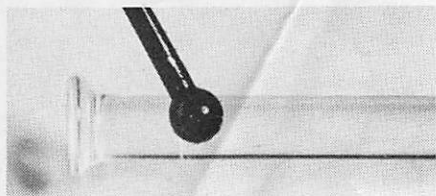
7 With practice, you can also make curved cuts without using a guide by following a line. Just start the cut at an edge.



8 Tap the glass under the cut with the ball on the cutter handle. This starts the break and makes snapping apart easier.



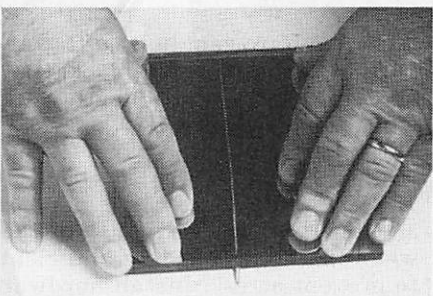
9 Hold the glass between thumbs and forefingers, close to the cut. For a clean cut, snap glass with bending motion.



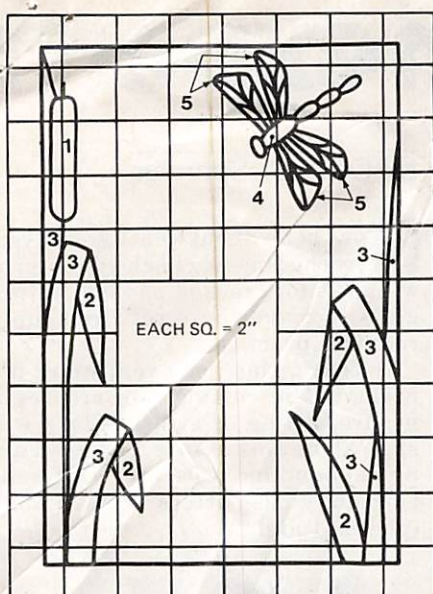
12 After scoring, break the rods by tapping them sharply with the cutter ball.



13 Tap heavy mirrors or plate glass sharply after scoring to make glass break.



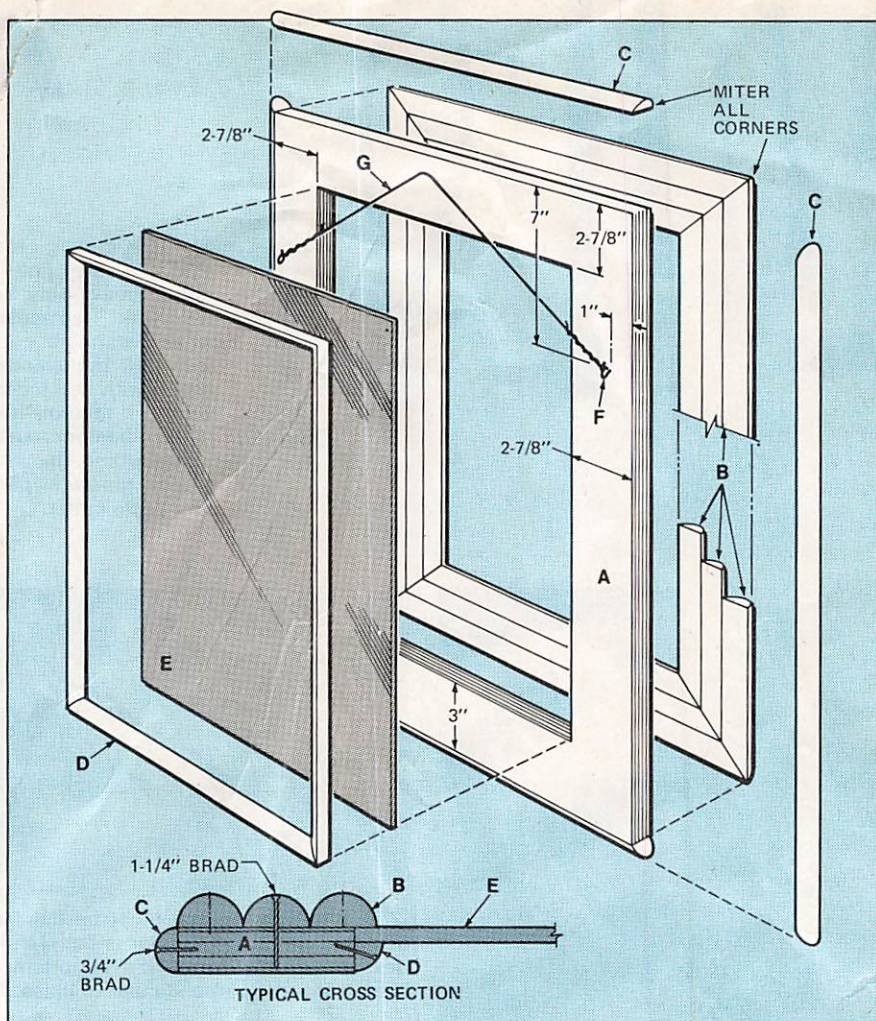
14 Then place a small rod under the cut to make the break easier when you push down on each side of the glass.



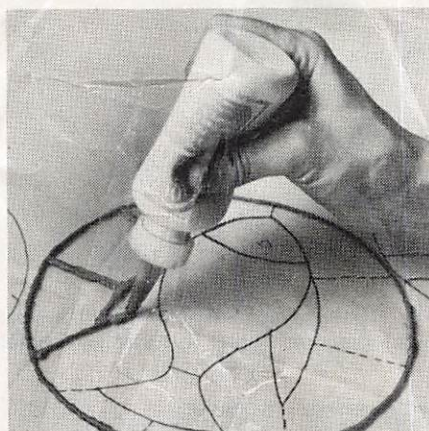
MATERIALS LIST—MIRROR

Key	No.	Size and description (use)
A	1	$\frac{3}{4}$ x 20 x 26" plywood (frame base)
B	1	$\frac{9}{16}$ x $1\frac{1}{8}$ x 24" half round, cut to size (molding)
C	1	$\frac{3}{8}$ x $\frac{3}{4}$ by 8" half round, cut to size (edging)
D	1	$\frac{1}{2}$ x $\frac{1}{2}$ x 8" quarter round, cut to size (back molding)
E	1	$\frac{1}{4}$ x $14\frac{1}{4}$ x $20\frac{1}{4}$ " mirror (decorative panel)
F	2	small-size screw eye (for hanging)
G	1	30" picture-hanging wire

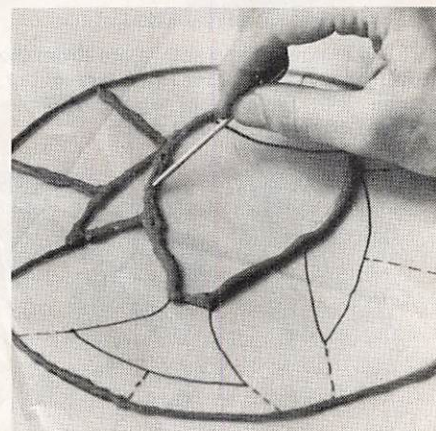
Misc.: $\frac{3}{4}$ " brads; $1\frac{1}{4}$ " brads; white glue; wood filler and McCloskey Heirloom Varnish. To glass-stain the mirror, you'll need: eye droppers; carbon paper; full-size pattern; pencil; toothpick; one 4-oz. bottle of Titan's Liquid Lead. Also, one 2-oz. bottle of Glas Stain in each of the following colors: Amber (1)*, Lime (2), Emerald (3), Turquoise (4), Light Blue (5).
 *Numbers in parenthesis match color code in pattern above.



Practice on scrap material until you can apply the liquid lead in a uniform line.



Place the full-size pattern under the panel; trace the lines with the liquid lead.



Press down on the liquid lead with a toothpick so that all areas adhere to the panel.

painting. Bore vent holes at top and bottom. Cut and test-fit back (G).

Rip a length of $1\frac{1}{8}$ -in. round to suit for molding (D). Sand smooth.

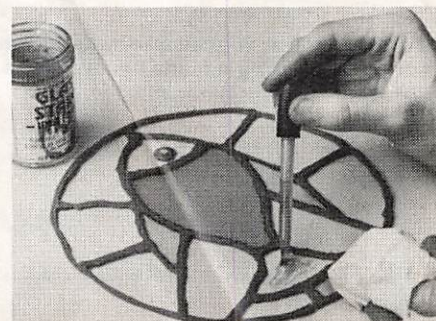
Temporarily install panel (H) and tack-nail molding (D) to check fit. Note: If your decorative panel is sheet acrylic, allow expansion space when installing molding and cleats to prevent stress. Install hardware at back. Check parts for fit and disassemble.

Install the fluorescent lamps, making the connections as shown in

HOW TO ORDER GLASS STAIN PATTERNS

You can order full-size patterns of the decorative glass-stain panels used in these projects. Send check or money order payable to Popular Mechanics to Dept. GSP, Box 1014, Radio City Station, New York, N.Y. 10019. Specify pattern: Dragonfly (\$1.25 each), Casa (\$1.75 each) or Zodiac (\$1.95 each). Allow three to four weeks for third-class mail delivery. For faster, first-class mail, add 35 cents.

the drawing on page 98. Carefully locate lamps (J) to allow clearance between them and the front and
 (Please turn to page 130)



Apply glass stain with eyedroppers. Hold tissue under dropper while carrying stain.